

Notice of Allowability

Application No.

10/662,961

Examiner

Ngoc-Yen M. Nguyen

Applicant(s)

GREER, F. CONRAD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to January 29, 2007.
2. ☒ The allowed claim(s) is/are 7-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Craig Cox on April 12, 2007.

The application has been amended as follows:

- Cancel claims 1-6 without prejudice.

7. (Previously Amended) A method comprising:

- dissolving anhydrous ferric trichloride in a solvent to create a ferric trichloride/solvent solution;
- blending the ferric trichloride/solvent solution with a polymer to create a mixture;
- adding the mixture to anhydrous hydrofluoric acid thereby converting the ferric trichloride to ferric trifluoride;
- separating the ferric trifluoride; and
- drying the ferric trifluoride.

8. (Original) The method of claim 7 wherein the anhydrous ferric trichloride is essentially chemically pure.

9. (currently amended) The method of claim 7 wherein the ~~solvents comprise~~
solvent comprises one or more of alcohol, methanol, ether, benzene, and or acetone.

10. (Original) The method of claim 7 wherein a sufficient quantity of ferric trichloride is dissolved to essentially saturate the solvent with the ferric trichloride.

11. (Original) The method of claim 7 wherein the polymer is polyethylene glycol.

12. (Currently amended) The method of claim 7 further comprising:
mixing the ferric trichloride/solvent solution and the polymer until the ~~combined~~
~~ingredients~~ mixture is clear, uniform and stable.

13. (Original) The method of claim 7 wherein the adding step further comprises stirring.

14. (Original) The method of claim 7 wherein the adding step further comprises:

adding the mixture to anhydrous hydrofluoric acid until the stoichiometric ratio of the gram moles of the ferric trichloride within the mixture is between one half and one sixtieth of the relevant gram moles of anhydrous hydrofluoric acid.

15. (Currently amended) The method of claim 7 wherein the ferric trifluoride is dried slowly in stages, up to 100°C, until ~~any~~ all moisture has been driven off and thereafter the temperature is raised to 240°C.

16. (Original) The method of claim 15 wherein any remaining solvent and polymer evaporates at high temperature thereby freeing the ferric trifluoride of the solvent and/or the polymer.

17. (Original) The method of claim 7 further comprising:
placing dried ferric trifluoride in containers that prevent the ferric trifluoride from becoming hydrated.

18. (Currently amended) The method of claim 7 wherein ~~a resultant anhydrous~~ the dried ferric trifluoride product is anhydrous, essentially chemically pure and exhibits discrete, nonagglomerated, uniform particles with a mean particle size in the order of 0.2 micron and a surface area in the order of 150 square meters per gram.

19. (Currently amended) The method of claim 7 wherein ~~a resultant~~ the dried ferric trifluoride product exhibits a pH of between 4.0 and 7.0 when one gram of the dried ferric trifluoride is mixed with 10 grams of demineralized water.

20. (Previously Amended) A method comprising:
dissolving ferric trichloride in distilled warm water to form a salt solution;
combining the salt solution with polyethylene glycol powder to form a mixture;

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stirring the mixture until the mixture is a clear solution;

adding the mixture to anhydrous hydrofluoric acid, thereby allowing the ferric trichloride to react with the anhydrous hydrofluoric acid and to convert to ferric trifluoride;

separating the ferric trifluoride; and

drying the separated ferric trifluoride.

21. (Original) The method of claim 20 wherein the mixture is added to the anhydrous hydrofluoric acid drop by drop until the stoichiometric ratio of the gram moles of ferric trichloride within the mixture is equal to or less than one half the relevant gram moles of anhydrous hydrofluoric acid.

22. (Original) The method of claim 20 wherein the adding step is accompanied by stirring.

23. (Currently amended) The method of claim 20 wherein the separated ferric trifluoride material is dried slowly in stages, up to 100°C, until all volatile materials have been driven off, and ~~wherein a temperature of the ferric trichloride~~ thereafter the temperature is raised to the point where remaining solvents and polymers evaporate and/or decompose so that the ferric trifluoride becomes completely free from all of the solvent and/or the polymer.

24. (Original) The method of claim 20 further comprising:

placing dried ferric trichloride in containers to keep the ferric trifluoride from becoming hydrated.

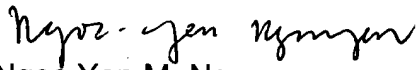
The following is an examiner's statement of reasons for allowance: the prior art does not teach or suggest a method for producing ferric trifluoride by reacting ferric trichloride with anhydrous hydrogen fluoride while the ferric trichloride is in a mixture with a solvent and a polymer. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on a Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ngoc-Yen M. Nguyen
Primary Examiner
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nmn
April 16, 2007